

This listing of claims are the claims in the present application:

Listing of Claims:

1.-12. (Cancelled) .

13. (original) A method of grain moisture sensing and measurement comprising:
selecting a frequency from a plurality of frequencies;
applying the frequency to a parallel plate cell filled with grain;
measuring a first complex admittance of the parallel plate cell filled with grain;
applying the frequency to a reference;
measuring a second complex admittance of the reference; and computing a complex permittivity from the first complex admittance and the second complex admittance.

14. (original) The method of claim 13 wherein the step of computing includes applying a calibration factor to the reference admittance to calculate an empty cell admittance.

15. (original) The method of claim 13 further comprising selecting the second reference admittance from a plurality of reference admittances.

16. (Withdrawn) A method of measuring moisture of grain comprising:

measuring real and imaginary components of an excitation voltage having a frequency applied to a driven plate of a parallel plate cell;
measuring real and imaginary components of a sense current sensed at a sense plate of the parallel plate cell;
calculating a complex admittance of the parallel plate cell;
calculating a complex admittance of a reference admittance;
and
calculating a grain complex permittivity.

17. (Withdrawn) The method of claim 16 further comprising using a plurality of references to determine one or more distortion characteristics of measuring the real and imaginary components.

18. (Withdrawn) The method of claim 17 further comprising correcting for the determined distortion characteristics.

19. (Withdrawn) The method of claim 16 wherein the reference admittance is selected from a set comprising the parallel plate cell when empty, a capacitive load, and a complex impedance load.

20. (Withdrawn) The method of claim 16 further comprising changing the frequency of the excitation voltage.

21. (Withdrawn) The method of claim 16 further comprising selecting the reference admittance.

22.-26. (Cancelled).

27. (previously presented) A method of claim 13 further comprising:

measuring real and imaginary components of an excitation voltage having a frequency applied to a driven plate of a parallel plate cell;

measuring real and imaginary components of a sense current sensed at a sense plate of the parallel plate cell;

calculating the first complex admittance of the parallel plate cell;

calculating the second complex admittance of a reference admittance; and

calculating a grain complex permittivity.

28. (previously presented) The method of claim 16 further comprising using a plurality of references to determine one or more distortion characteristics of measuring the real and imaginary components.

29. (previously presented) The method of claim 17 further comprising correcting for the determined distortion characteristics.

30. (previously presented) The method of claim 16 wherein the reference admittance is selected from a set comprising the parallel plate cell when empty, a capacitive load, and a complex impedance load.

31. (previously presented) The method of claim 16 further comprising changing the frequency of the excitation voltage.

32. (previously presented) The method of claim 16 further comprising selecting the reference admittance.